

**TECHNICAL REVIEW DOCUMENT**  
**for**  
**MODIFICATION TO OPERATING PERMIT 96OPAD130**

Public Service Company – Cherokee Station  
Adams County  
Source ID 0010001

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**I. Purpose:**

This document establishes the decisions made regarding the requested modification to the Operating Permit for Public Service Company's Cherokee Station. This document provides information describing the type of modification and the changes made to the permit as requested by the source and the changes made due to the Division's analysis.

This document is designed for reference during review of the proposed permit by EPA and for future reference by the Division to aid in any additional permit modifications at this facility. The conclusions made in this report are based on the information provided in the request for modification submitted to the Division on March 26, 2007, additional information submitted on March 27, 2007, e-mail correspondence and telephone conversations with the source. This narrative is intended only as an adjunct for the reviewer and has no legal standing.

Any revisions made to the underlying construction permits associated with this facility made in conjunction with the processing of this operating permit application have been reviewed in accordance with the requirements of Regulation No. 3, Part B, Construction Permits, and have been found to meet all applicable substantive and procedural requirements. This operating permit incorporates and shall be considered to be a combined construction/operating permit for any such revision, and the permittee shall be allowed to operate under the revised conditions upon issuance of this operating permit without applying for a revision to this permit or for an additional or revised construction permit.

**II. Description of Permit Modification Request/Modification Type**

The Operating Permit for the Cherokee Station was issued on February 1, 2002. The expiration date for the permit was February 1, 2007. However, since a timely and complete renewal application was submitted, under Colorado Regulation No. 3, Part C, Section IV.C all of the terms and conditions of the existing permit shall not expire until the renewal operating permit is issued and any previously extended permit shield continues in full force and operation. The source requested that the permit be revised to increase the emission and ash processing limits for the Unit 4 ash silo. The current emission and ash processing limits are based on the assumption that the ash content of the coal used in the Unit 4 boiler is 9.95%. However, the coal delivered to the facility often exceeds 15% ash content. The proposed modification requested an increase in

emissions and throughput based on an ash content of 15 %. Requested PM and PM<sub>10</sub> emissions are 15.5 tons/yr for the Unit 4 ash silo, which is an increase of 5.2 tons/yr from previously permitted (potential) emissions.

Since requested emissions of PM<sub>10</sub> exceed the significance level of 15 tons/yr, the Division requested that the source submit actual emissions from the ash silo from the past two years to demonstrate that the requested increase in PM<sub>10</sub> emissions from the ash silo are below the significance level. In their March 27, 2007 submittal the source provided information indicating that actual emissions from the ash silo were 9.1 tons/yr in 2005/2006 (March 1, 2005 – February 28, 2006) and 9.8 tons/yr in 2006/2007 (March 1, 2006 – February 28, 2007), with an average of 9.45 tons/yr over that two year period. The increase in actual emissions from the project are shown in the table below:

	PM <sub>10</sub> Emissions (tons/yr)
Requested Emissions	15.5
Actual Emissions (average of 2005/2006 and 2006/2007)	9.45
Change in Actual Emissions	6.05

Colorado Regulation No. 3, Part C, Section X.A identifies those modifications that can be processed under the minor permit modification procedures. Specifically, minor permit modifications “are not otherwise required by the Division to be processed as a significant modification” (Colorado Regulation No. 3, Part C, Section X.A.6). The Division requires that “any change that causes a significant increase in emissions” be processed as a significant modification (Colorado Regulation No. 3, Part C, Section I.B.36.h.(i)). The increase in permitted (potential) emissions associated with this modification is 5.2 tons/yr, which is below the PSD significance levels of 25 tons/yr (PM) and 15 tons/yr (PM<sub>10</sub>). Therefore, the Division agrees that this modification qualifies as a minor modification.

### **III. Modeling**

The requested increase in permitted PM<sub>10</sub> emissions is below the modeling threshold of 15 tons/yr of PM<sub>10</sub> specified in the Division’s modeling guidance; therefore, no modeling is required.

### **IV. Discussion of Modifications Made**

#### **Source Requested Modifications**

The Division addressed the source-s requested modifications as follows:

#### **Section II, Conditions 6.2 and 6.4**

The Division increased the limits on emissions and quantity of ash processed through the Unit 4 ash silo as requested.

## **Other Modifications**

In addition to the requested modifications made by the source, the Division used this opportunity to include changes to make the permit more consistent with recently issued permits, include comments made by EPA on other Operating Permits, as well as correct errors or omissions identified during inspections and/or discrepancies identified during review of this modification.

The Division has made the following revisions, based on recent internal permit processing decisions and EPA comments on other permits, to the Cherokee Station Operating Permit with the source's requested modifications. These changes are as follows:

### **Page Following Cover Page**

- Changed the Responsible Official.

### **Section I – General Activities and Summary**

- Added Section V, Condition 3.d as a state-only condition to Condition 1.4. Section V, Condition 3.d (affirmative defense provisions for excess emissions during malfunctions) is state-only until approved by EPA in the SIP.

### **Section II.2–Boilers – Natural Gas Firing**

- Removed the last sentence from Condition 2.11. This condition already refers the reader to Section III for Acid Rain provisions and this last sentence is not necessary.

### **Section II.15 – Voluntary Emissions Reduction Agreement**

- The Common Provisions Regulation has been revised and the provisions for upsets have been replaced with affirmative defense provisions for excess emissions during malfunctions. Therefore, the term “upset conditions” has been replaced with “malfunction”.

### **Section III – Acid Rain Requirements**

- Revised the Designated Representative.
- Removed the requirement to submit the annual compliance certification in Section 4 (Reporting Requirements). As a result of revisions to the Acid Rain Program made with the Clean Air Interstate Rule (final published in the federal register on May 12, 2005), annual compliance certifications are no longer required, beginning in 2006.

### **Section V – General Conditions**

- Revisions were made to the Common Provisions Regulation (general condition

3), effective December 15, 2006 (effective March 4, 2007). The appropriate revisions were made to the language in the permit. The December 15, 2006 revisions replaced the upset provisions with the affirmative defense provisions for excess emissions during malfunctions.

- Replaced the reference to “upset” in Condition 5 (emergency provisions) and 21 (prompt deviation reporting) with “malfunction”.

#### Appendices

- Replaced Appendices B and C with the latest versions.
- Changed the mailing address for EPA in Appendix D. Removed the Acid Rain addresses in Appendix D, since annual certification is no longer required and submittal of quarterly reports/certifications is done electronically.